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Masking tape and application method

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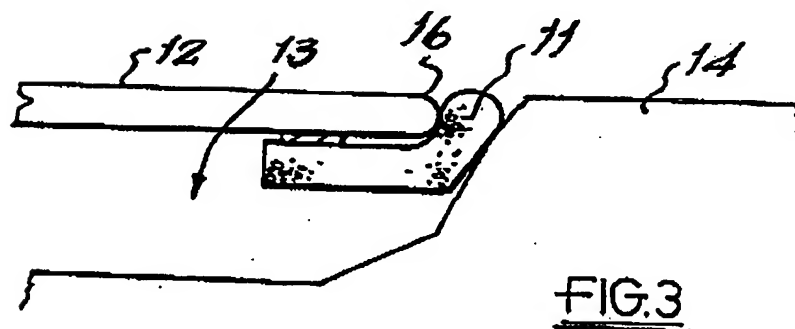
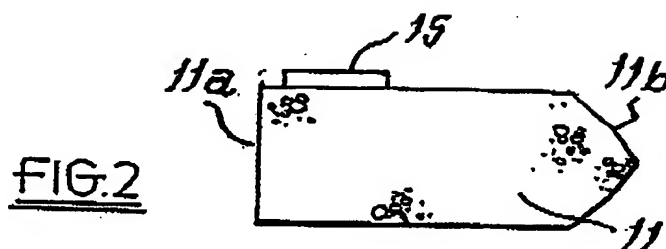
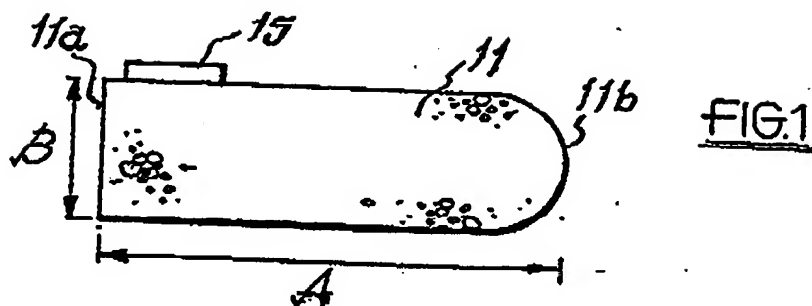
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### Masking Tape and Application Method

This invention relates to masking tape for use in spraying automobile doors and the like openings to prevent penetration of spray through the door - as yet - unsealed gap between door (or other opening member, such as sun roof) and surround.

Masking tapes for such use are known in various forms made of foam material such for example as polythene, polyester, neoprene and the like. GB 885 660 discloses strip of tape of square cross-section, which is compressed and then fitted into channels provided for subsequent fitting of weather sealing strip. EP 0 365 510 discloses strip of rectangular cross-section as well as strip of circular cross-section with adhesive on one face of the rectangular section embodiment and covering one side of the circular section embodiment.

Widely used are strips which are essentially ribbon-like which are readily folded or bent into a C-cross-section. These ribbon-like tapes have adhesive on one side for attachment to the fixed structure.

Despite the continued development of these masking tapes, problems are experienced in use. For one thing, they need to be applied carefully so as to be correctly positioned. Often, mispositioning is not apparent until the door on other member has been closed and - worse - maybe not even then. Exposed adhesive, for another, prevents absorption and paint builds up which hardens into an edge that has to be rubbed down.

The present invention provides a masking foam tape which does not suffer from these problems.

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The invention comprises a masking foam tape adapted for use in spraying automobile doors and like openings to prevent penetration of spray through the unsealed gap between door and door surround, having an elongate, substantially rectangular section having major dimension at least twice but not more than four times its minor dimension and having at one untapered end of its elongate section adhesive for attachment at the opening and being tapered and free of adhesive at the other end thereof.

The adhesive may be only on one face of the tape having the major dimension.

The tapered end may be rounded or faceted.

The invention also comprises a method for masking an unsealed automobile opening having an opening member for spraying, comprising attaching a masking foam tape having an elongate substantially rectangular section having a major dimension at least twice but not more than four times its minor dimension and having at one end of its elongate section adhesive for attachment at the opening and being tapered and free of adhesive at the other end, around the inner edge of the open opening member to project around the member beyond the rim thereof and closing the member to position the projecting part of the tape between member and surround, and, where necessary, subsequently adjusting the said part of the tape to be evenly accommodated around the rim. The opening may comprise a door.

As the tapered edge of the tape, which is effectively the sealing portion thereof being, when closed on, trapped between the surround and the door or other member rim, has no adhesive, it can readily be adjusted - the trapping action leaving scope for manual adjustment where the foam might project too far out of the gap, or not far enough. Moreover, the whole exposed surface is absorbent and causes no hard edge formation, saving a rubbing operation which is time consuming.

Embodiments of masking foam tape and a method for masking using the same will now be described with reference to the accompanying drawings, in which:-

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- Figure 1 is a cross-section of one embodiment;
- Figure 2 is a cross-section of another embodiment; and
- Figure 3 is a diagrammatic section showing a tape according to Figure 1 in position between a door and a door post of an automobile.

The drawings illustrate a masking foam tape 11 adapted for use in spraying automobile doors 12 and like openings to prevent penetration of spray through the unsealed gap 13 between door 12 and door surround (post 14, Figure 3). The tapes 11 have elongate substantially rectangular sections having major dimension A at least twice but not more than four times its minor dimension B and having at one end 11a of its elongate section adhesive 15 for attachment at the opening and being tapered and free of adhesive at the other end 11b thereof.

Typical values for A and B are 25mm and 10mm respectively.

The adhesive 15 is confined to a thin strip along one face of the tape 11 having the major dimension A. The strip may be, say, 2mm in from the edge and some 8mm wide.

The tapered end in Figure 1 is rounded, in Figure 2, faceted - generally, the cross-section is that of a bullet.

Figure 3, shows how the tape 11 of Figure 1 (Figure 2 would be the same) is applied by attaching it by its adhesive strip 15 around the inner edge 16 of the door 12 so as to project, by its adhesive-free tapered edge 11b, around the door 12 beyond the rim

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thereof and closing the door 12 to position the projecting part between door 12 and surround 14.

As there is no adhesive in the region where the foam is trapped, any mispositioning may be readily adjusted by manually or perhaps automatically repositioning the tape - modest finger pressure suffices, but, of course, a robotic mechanism can be trained to do this.

With the dimensions quoted, no difficulty is experienced in bending the strip to conform to a corner.

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**CLAIMS**

1. A masking foam tape adapted for use in spraying automobile doors and like openings to prevent penetration of spray through the unsealed gap between door and door surround, having an elongate substantially rectangular section having major dimension at least twice but not more than four times its minor dimension and having at one untapered end of its elongate section adhesive for attachment at the opening and being tapered and free of adhesive at the other end thereof.
2. A tape according to claim 1, the adhesive being along one face of the tape having the major dimension.
3. A tape according to claim 1 or claim 2, the tapered end being rounded.
4. A tape according to claim 1 or claim 2, the tapered end being faceted.
5. A method for masking an unsealed automobile opening having an opening member for spraying, comprising attaching a masking foam tape, having an elongate substantially rectangular section having a major dimension at least twice but not more than four times its minor dimension and having at one end of its elongate section adhesive for attachment at the opening and being tapered and free of adhesive at the other end, around the inner edge of the open opening member so as to project around the member beyond the rim thereof and closing the member to position the projecting part of the tape between member and surround, and, where necessary, manually adjusting the said part of the tape to be evenly accommodated around the rim.
6. A method according to claim 5, in which the opening comprises a door.